

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1 - 22 (canceled).

23. (new): A method for treating polluted air containing cigarette smoke comprising the steps of introducing polluted air into a low temperature plasma-generating unit containing a hopcalite catalyst, and at least a pair of electrodes; generating a low temperature plasma in the unit to treat the polluted air, and discharging treated air.

24. (new): The method according to claim 23, wherein a gaseous compound in the polluted air is oxidized.

25. (new): The method according to claim 23, wherein a volatile organic compound in the polluted air is decomposed.

26. (new): The method according to claim 23, wherein a foul odor in the polluted air is rendered to odorless.

27. (new): An apparatus for treating a polluted air containing cigarette smoke, comprising

a low temperature plasma-generating unit containing a hopcalite catalyst, and at least a pair of electrodes;

a means for supplying the polluted air to the low temperature plasma-generating unit,

a means for discharging a treated gas, and

an alternating-current power supply for applying a high voltage between the electrodes.

28. (new): The apparatus according to claim 27, wherein said low temperature plasma-generating unit contains a hollow-cylindrical electrode and a bar electrode placed at a central axis of said hollow-cylindrical electrode, and said hopcalite catalyst is carried on an inner surface of said hollow-cylindrical electrode in the form of granule while a surface of said granular catalyst is exposed.

29. (new): The apparatus according to claim 27, wherein said low temperature plasma-generating unit contains a hollow-cylindrical insulator, a hollow-cylindrical electrode mounted on said hollow-cylindrical insulator while an outer surface of said hollow-cylindrical insulator comes into direct contact with said hollow-cylindrical electrode, plural band electrodes arranged on an inner surface of said hollow-cylindrical insulator, and said hopcalite catalyst arranged in the form of granule on said inner surface of said hollow-cylindrical insulator, said band electrodes being arranged parallel to each other in a direction of an axial of said hollow-cylindrical insulator on said inner surface thereof, and said hopcalite catalyst is carried between said band electrodes while the surface of the granular catalyst is exposed.

30. (new): The apparatus according to claim 27, wherein said low temperature plasma-generating unit contains solid-cylindrical electrodes in a housing as two separately divided groups between which an electric-discharge can be carried out, and the hopcalite catalyst is carried on a surface of said solid-cylindrical electrode while a surface of said catalyst is exposed.

31. (new): The apparatus according to claim 30, wherein said solid-cylindrical electrode

(1) is a combination of (a) a protecting electrode containing a core electrode and a hollow-cylindrical insulating sheath surrounding a circumference of said core electrode, and (b) a solid-cylindrical exposed electrode, a surface of which is capable of coming into direct contact with the polluted air to be treated, or

(2) is composed only of said protecting electrode.

32. (new): The apparatus according to claim 27, wherein said low temperature plasma-generating unit contains, in a housing, (a) a solid-cylindrical protecting electrode containing a core electrode and a hollow-cylindrical insulating sheath surrounding a circumference of said core electrode, and (b) a conductive mesh electrode, and the hopcalite catalyst is carried on said conductive mesh electrode while a surface of said catalyst is exposed.